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(12) United States Patent

Bencteux et al.

(54) MEDICAL ROBOT IN PARTICULAR FOR GUIDING ELONGATE FLEXIBLE MEDICAL PARTS

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(56) References Cited

U.S. PATENT DOCUMENTS

3,995,628 A 12/1976 Gula 7,389,156 B2* 6/2008 Ziegler A22C 17/0013

(Continued)

FOREIGN PATENT DOCUMENTS

EP	1 576 930 A1	9/2005
EP	1 792 638 A2	6/2007
FR	2 308 381 A1	11/1976

OTHER PUBLICATIONS

French Search Report Application No. 1352063, reported on Nov. 15, 2013.

(Continued)

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(57) ABSTRACT

The invention concerns a medical robot for guiding elongate flexible medical parts, comprising: a fixed base having an outer peripheral wall; a container which is movable relative to the fixed base by a degree of freedom of rotation, the container comprising an inner peripheral wall defining with the outer peripheral wall a first compartment; and the outer peripheral wall having an aperture which opens into the interior of the first compartment and via which the first elongate flexible part can be moved.

15 Claims, 5 Drawing Sheets

